

Food and Drug Administration 10903 New Hampshire Avenue Document Control Center – WO66-G609 Silver Spring, MD 20993-0002

June 1, 2015

C.r. Bard, Inc. Bryan Stone Regulatory Affairs Specialist 605 North 5600 West Salt Lake City, UT 84116

Re: K141531

Trade/Device Name: Power-Trialysis Slim-Cath Short-Term Dialysis Catheter

Regulation Number: 21 CFR§ 876.5540

Regulation Name: Blood access device and accessories

Regulatory Class: II Product Code: NIE Dated: April 2, 2015 Received: April 7, 2015

Dear Bryan Stone,

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of Act. However, you are responsible to determine that the medical devices you use as components in the kit have either been determined as substantially equivalent under the premarket notification process (Section 510(k) of the act), or were on the market prior to May 28, 1976, the enactment date of the Medical Device Amendments. Please note: If you purchase your device components in bulk (i.e., unfinished) and further process (e.g., sterilize) you must submit a new 510(k) before including these components in your kit. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be

CFR Part 803), please go to

found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

In addition, we have determined that your device kit contains Lidocaine and ChloraPrep which are subject to regulation as drugs.

Our substantially equivalent determination does not apply to the drug components of your device. We recommend you first contact the Center for Drug Evaluation and Research before marketing your device with the drug components. For information on applicable Agency requirements for marketing these drugs, we suggest you contact:

Food and Drug Administration Center for Drug Evaluation and Research Office of Unapproved Drugs and Labeling Compliance 10903 New Hampshire Ave. Silver Spring, MD 20993 (301) 594-0101

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638 2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21

<u>http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm</u> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>.

Sincerely yours,

## Herbert P. Lerner -S

for Benjamin R. Fisher, Ph.D.
Director
Division of Reproductive, Gastro-Renal,
and Urological Devices
Office of Device Evaluation
Center for Devices and Radiological Health

Enclosure

### DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

#### **Indications for Use**

510(k) Number (if known)

Form Approved: OMB No. 0910-0120 Expiration Date: January 31, 2017 See PRA Statement below.

K141531
Device Name Power-Trialysis Slim-Cath Short-Term Dialysis Catheter
Indications for Use (Describe) The Power-Trialysis Slim-Cath Short-Term Dialysis Catheter, with a third internal lumen for intravenous therapy, power injection of contrast media, and central venous pressure monitoring, is indicated for use in attaining short-term (less than 30 days) vascular access for hemodialysis, hemoperfusion, and apheresis treatments. The catheter is intended to be inserted in the jugular, femoral, or subclavian vein as required. The maximum recommended infusion rate is 5 mL/sec for power injection of contrast media.
Type of Use (Select one or both, as applicable)    Prescription Use (Part 21 CFR 801 Subpart D)   Over-The-Counter Use (21 CFR 801 Subpart C)

CONTINUE ON A SEPARATE PAGE IF NEEDED.

This section applies only to requirements of the Paperwork Reduction Act of 1995.

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Department of Health and Human Services Food and Drug Administration Office of Chief Information Officer Paperwork Reduction Act (PRA) Staff PRAStaff@fda.hhs.gov

"An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number."



#### 510(k) Summary 21 CFR 807.92(a)

General Provisions	Submitter Name: Submitter Address:	Bard Access Systems, Inc. 605 North 5600 West
		Salt Lake City, UT 84116
	Contact Person:	Elizabeth U. Peterson
		Regulatory Affairs Specialist
	Telephone Number:	(801) 522-5472
	Fax Number:	(801) 522-5425
	Date of Preparation:	November 12, 2014
Subject Device	Trade Name:	Power-Trialysis <sup>™</sup> Slim-Cath Short-Term Dialysis Catheter
	Common Name:	Short-Term Dialysis Catheter
	Classification Name:	Catheter, Hemodialysis, Triple Lumen, Non-
		Implanted
	Product Code:	NIE
	Classification	
	Regulation:	21 CFR §876.5540
Predicate Device	Trade Name:	Power-Trialysis <sup>™</sup> Short-Term Dialysis Catheter
	Common Name:	Short-Term Dialysis Catheter
	Classification Name:	Catheter, Hemodialysis, Triple Lumen, Non- Implanted
	Product Code:	NIĒ
	Classification	
	Regulation:	21 CFR §876.5540
	Premarket Notification:	
	Concurrence Date:	September 24, 2014
	Power-Trialysis <sup>™</sup> Slim-Cath <sup>™</sup> Short-Term Dialysis Catheters are made of thermosensitive polyurethane, which softens when exposed to body temperature. The catheter is divided into three separate lumens permitting	
Device Description	continuous blood flow. Both the venous (blue) and the arterial (red) lumens may be used for hemodialysis, hemoperfusion, and apheresis treatments. The distal (purple) lumen is completely independent from the two dialysis lumens and may be used for intravenous therapy, power injection of contrast media,	

and central venous pressure monitoring. The distal lumen can also be accessed

for blood draws and infusion of medications.

#### Intended Use

Power-Trialysis<sup>™</sup> Slim-Cath<sup>™</sup> Short-Term Dialysis Catheters are recommended for use in attaining short term vascular access for hemodialysis, apheresis, and hemoperfusion treatments. This device is intended for insertion in the internal jugular, femoral, or subclavian vein as required. The catheter is also intended for short term access to the central venous system for intravenous therapy and blood sampling.

#### Indications For Use

The Power-Trialysis<sup>™</sup> Slim-Cath<sup>™</sup> Short-Term Dialysis Catheter, with a third internal lumen for intravenous therapy, power injection of contrast media, and central venous pressure monitoring, is indicated for use in attaining short-term (less than 30 days) vascular access for hemodialysis, hemoperfusion, and apheresis treatments. The catheter is intended to be inserted in the jugular, femoral, or subclavian vein as required. The maximum recommended infusion rate is 5 mL/sec for power injection of contrast media.

Vascular access for hemodialysis, hemoperfusion, and apheresis treatments with the additional power injectable third lumen is the technological principle for both the subject and predicate devices.

At a high level, the subject and predicate devices are based on the following same technological elements:

- Short term use (<30 days).
- Insertion technique- Seldinger (over-the-guidewire) or percutaneous procedure into one of the large central veins to place the catheter.
- Catheter is intended to be inserted in the jugular, femoral, or subclavian vein as required.
- Catheter tip placement is in the central venous system with the Superior Vena Cava (SVC) preferred.
- Catheter length 12.5 cm, 15 cm, 20 cm, 24 cm, and 30 cm.
- The tip configuration is an atraumatic tapered tip. The catheter is skived to create the venous and arterial lumen openings. The powerinjectable lumen opening is distal to the venous and arterial lumen openings.

The following technological differences exist between the subject and predicate devices:

- Optimization of lumens
- Reduction of French size
- Reduction in the size of side holes.

The differences are not critical to the intended use of the device and do not raise any new questions regarding safety or effectiveness.

## **Technological Characteristics**

Verification and validation activities were designed and performed in accordance with Design Controls as per 21 CFR §820.30. The following performance data were referenced in support of the substantial equivalence determination.

**Kink Resistance** testing was performed to determine the propensity of a catheter shaft to kink when exposed to a bending environment

**Priming Volumes** were determined to provide information for labeling.

**Assembly Leak** testing was performed to ensure previous conditioning did not cause the test articles to leak.

**Assembly Burst** testing was performed post power injection to ensure the multiple power injection conditioning did not cause the material of the test articles to weaken.

Comparison of Use Pressure to Burst Pressure was completed to ensure the catheter will not see high enough pressures during power injection to cause damage to the catheter.

**Guidewire Fit** testing was performed to ensure use compatibility between the catheters and guidewires.

# Safety & Performance Testing

**Dialysis Flow** testing was performed to ensure the catheter configurations satisfy established flow rate requirements under labeled dialysis procedural pressures.

**Gravity Flow** testing was performed to determine the flow rate of normal saline through the power injectable lumen.

**Catheter Collapse for Dialysis Lumens** testing was performed to ensure the catheter lumens will not collapse at established pressure requirements that could be achieved during hemodialysis procedures.

**Hemolysis** testing was performed by infusing and aspirating blood through the catheters. The evaluation was conducted in accordance with ASTM F1841:1997 (R 2005)

**Tip Tensile** testing was performed to ensure the catheter tip will not detach under worst case tensile conditions.

**Recirculation** testing was performed to determine the percentage of recirculation of the catheter in forward and reverse flows.

The subject device met all predetermined acceptance criteria derived from the above listed references and demonstrated substantially equivalent performance as compared to the cited predicate device.

#### Summary of Substantial Equivalence

Based on the indications for use, technological characteristics, and safety and performance testing, the subject Power-Trialysis<sup>™</sup> Slim-Cath<sup>™</sup> Short-Term Dialysis Catheter meets the requirements that are considered sufficient for its intended use and demonstrates that the subject device is substantially equivalent to the predicate device cited.